

**MASTER VOCABULARY LIST
FOR THE FLORISSANT FOSSIL BEDS NATIONAL MONUMENT**

Kindergarten through 3 rd grade -	Level 1
3 rd grade through 6 th grade -	Level 1 and Level 2
6 th grade through 12 th grade -	Level 1, Level 2, and Level 3

Level 1

CORE	The center portion of the earth. It is thought to be composed of two regions: 1) the inner core which is solid and has a radius of 750 miles; and 2) the outer core which is molten and about 1400 miles thick.
DECAY	The decomposition of organic matter.
ERUPTION	Magma (molten rock) is forced to the surface due to pressure of gas and water vapor building up below the earth's crust.
EXTINCT	Plants or animals found only as fossils or not at all; not found alive today.
FOSSIL	Remains of past plants or animals found in the earth's crust.
GEOLOGIST	A scientist who studies rocks and minerals.
GEOLOGY	The study of the earth through rocks.
HABITAT	The environment in which the life needs of a plant or animal are supplied.
IMPRESSION	A mark left behind by the surface of an organism in layers of fine-grained sediments, though the actual organism decays.
PALEONTOLOGIST	A scientist that studies ancient life through fossils.
PALEONTOLOGY	The study of fossils to show how living things evolved on the earth.
PETRIFIED WOOD	Wood that has been replaced by minerals.
PETRIFY	A process that replaces living materials with minerals. Minerals dissolved in ground water replace the cells of a dead tree or bones of a dead animal.
PRESERVED	A plant or animal kept at least partly in its original form after death.
TRACE FOSSIL	Evidence of an activity of a living thing preserved as footprints, burrows, coprolites, etc.
VOLCANO	Volcanoes are vents or fissures in the earth's crust through which magma is force onto the surfaces as lava by a build up of gas and water vapor.

Level 2

ASH	Volcanic dust or tiny lava particles that accompany pyroclastic explosions.
BIOSTRATIGRAPHIC UNIT	A group of rock strata that is identified by its fossil content.
BRECCIA	A sedimentary rock composed of angular rock fragments fixed in a matrix.
CALDERA	A basin-shaped volcanic depression, more than a mile wide, typically resulting from an eruption and/or collapse of a volcano.
CARBON	An abundant element that is a basic building block in the cells of all living beings.
CARBONIZATION	The reduction of plant or animal remains to a film of carbon.
CLIMATE	The sum total of the weather patterns that characterize the average and extreme conditions of the atmosphere over a long period of time for a specific region of the earth's surface.
CONGLOMERATE	A rock made up of rounded pebbles and cobbles in a matrix.
CONTINENTAL DRIFT	The theory that continents have moved in relation to one another.
COPROLITE	Fossil dung.
ECOSYSTEM:	Ecological system; an organic community and its physical environment.
ELEMENT	A substance made up of only one kind of atom. Elements can not be broken down by chemical means into simpler substances.
ENVIRONMENT	The sum total of all the external conditions that may act upon an organism or community to influence its development or existence.
EXTANT	Plants or animals that still exist; the opposite of extinct.
GENUS	A group of similar organisms that can be further subdivided into species.
GEOLOGIC TIMELINE	The "planetary calendar" that spans the entire length of the earth's history. The major subdivisions of geologic time are eras, periods, and epochs.
GEOPHYSICIST	Scientists who study the physics of our changing earth or geology.
GRANITE	A type of igneous rock formed from magma that cools inside the earth before reaching the surface.
IGNEOUS	A rock that is formed from solidified magma or lava.
INFERENCE	The process of deriving the strict logical consequences of assumed (observed) premises.
LATITUDE	The distance north or south of the equator, measured in degrees.

LONGITUDE	Angular distance east or west on the earth's surface, measured in degrees from the Prime Meridian, which passes through Greenwich, England.
MANTLE	The zone of the earth's interior between the crust and the core. The mantle is about 1800 miles thick and is made up of three regions. The outer most is solid and lies below the crust.
MATRIX	A natural material that cements rocks and pebbles together.
METAMORPHIC ROCK	A rock that is formed from previously existing rocks that have been subject to intense heat and/or pressure to the extent that their chemical composition has been altered.
MINERAL	A homogeneous crystalline solid with a unique chemical composition and physical properties. For example, table salt is the common name for the mineral halite, whose chemical formula is NaCl (sodium chloride).
OBSERVATION	To notice or perceive something and to note it.
PERMINERALIZATION	A type of fossilization that occurs to the hard parts of an organism when minerals are deposited between the cell walls. This is the type of fossilization that has preserved the trees at Florissant Fossil Beds National Monument.
PLATE TECTONICS	The theory that the Earth's outer most layer consists of several semi-rigid plates that move relative to each other.
PYROCLASTS	Lava fragments or rocks formed from debris of an explosive volcanic eruption.
SEDIMENT	Any substance that settles out of water.
SEDIMENTARY ROCK	Rock formed from sediments that are compacted under pressure. Sediments are particles of solid rocks eroded by glaciers, freeze-thaw action, rivers, wind, etc. Wind or water can redeposit these eroded particles.
SEISMOLOGY	The study of earthquakes.
SILICA	A mineral found in sand, quartz and volcanic ash. Silica is an important part of glass.
SPECIES	A group of similar organisms that are capable of breeding, have similar morphology and physiological compatibility, have an ecological association as well as geographic distribution, and finally, continuity in time.
SOLUTION	A substance dissolved in another substance, such as salt in water.
STRATA	Layers or beds of sedimentary rock.
STRATIGRAPHY	The branch of geology that deals with the formation, composition, sequence, and correlation of layered rocks as parts of the earth's crust.
TAXONOMY	The science of classification of organisms.

TUFF

This rock is formed by the accumulation of pyroclastic material ejected by explosive volcanic eruptions.

Level 3

CENOZOIC	The "Age of Mammals", this geologic era is the most recent.
EOCENE	An epoch in the Cenozoic, dating from about 55 million-years ago until about 33 million years ago.
EVOLUTION	The theory that life on earth has developed gradually, generally from simple to complex, all by change and branching of species.
HOLOTYPE	The specimen used by a scientist to describe the characteristics of a newly discovered species.
INDEX FOSSIL	Fossils that can be used as time-markers due to widespread geographic distribution and limited occurrence in geologic time.
MESOZOIC	This geologic era represents the age of the dinosaurs.
PALEOZOIC	A geologic era designated as the earliest time in earth's history. The life on earth is comprised of invertebrates and early plants. The Paleozoic era is divided into six periods designated by inundation of seas.
RADIOMETRIC DATING	A dating method that measures the amount of radioactive decay that has taken place in the rocks being studied.
RELATIVE DATING	A method of dating rock layers by their relationships or proximity to each other.

CAREERS IN GEOLOGY/PALEONTOLOGY

Classic Geologist
Paleontologist
Micropaleontologist
Planetary Geologist
Geochemist
Petrologist
Hydrologist
Geomorphologist
Geological Engineer
Mineralogist
Paleoentomologist
Paleobotanist
Stratigrapher
Seismologist
Volcanologist
Palynologist
Sedimentologist
Geophysicist